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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/747,955	12/27/2000	Tadayoshi Iijima	P107424-00020	3185

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EXAMINER	
JACKSON, MONIQUE R	

ART UNIT	PAPER NUMBER
1773	

MAIL DATE	DELIVERY MODE
05/02/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	09/747,955	IIJIMA, TADAYOSHI	
	Examiner	Art Unit	
	Monique R. Jackson	1773	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☐ Responsive to communication(s) filed on *12 April 2007*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-3,17,18,21,22,24-26,28-30,33 and 34* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-3, 17-18, 21-22, 24-26, 28-30 and 33-34* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☒ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

1. Upon reconsideration, the finality of prior office action dated 12/31/06 has been withdrawn. Any inconvenience to the Applicant is regretted. Claims 1-3, 17-18, 21-22, 24-26, 28-30 and 33-34 are pending in the application.

2. The terminal disclaimers filed on 4/12/07 disclaiming the terminal portion of any patent granted on this application which would extend beyond the expiration date of USPN 6,605,341 or USPN 6,617,018 have been reviewed and are accepted. The terminal disclaimers have been recorded.

Claim Rejections - 35 USC § 112

3. Claims 1-3, 17-18, 21-22, 24-26, 28-30 and 33-34 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. The instant claims recite that the compressed layer is obtained by compressing a layer containing the functional fine particles that is formed by application onto the support with a compression force of at least 44 N/mm^2 together with the support at a temperature below a glass transition temperature of said support, wherein the Applicant has stated on the record that these process claims allegedly produce a product different from the prior art. However, the Examiner notes that the limitations are relative and that the specification fails to provide a clear understanding as to the structure resulting from these product-by-process limitations. It is noted that the claimed compression step is stated in the specification as resulting in the particles being "buried" in the support (Page 25, lines 3-15) however the glass transition temperature limitation is stated as a temperature at which the support is not deformed (page 29, lines 20-24.) Hence, it is unclear how the particles can be

"buried" in the support if the support does not deform. Further, given that the limitation broadly recites any temperature below the glass transition temperature of the support, the Examiner notes that a temperature much lower than the Tg could in effect result in a plastic support that would be so firm or stiff as to resist any penetration or burying of the particles into the support. Hence, considering the instant claims do not recite that the particles are or are not embedded into the support, and considering the two limitations appear to contradict one another based on the guidance provided in the specification with regards to these two limitations, one having ordinary skill in the art would not be reasonably apprised of the scope of the claimed invention and could not interpret the metes and bounds of the claim so as to understand how to avoid infringement.

Claim Rejections - 35 USC § 102

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

5. Claims 1-3, 17-18, 21-22, 24-26, 28-30 and 33-34 are rejected under 35 U.S.C. 102(e) as anticipated by Nakamura et al (USPN 6,383,559.) Nakamura et al teach an anti-reflection film and display device comprising a layer of fine particles or microparticles arranged or packed closely to one another forming a layer on the surface of a support, generally a transparent support or film such as cellulose derivatives, polyesters like polyethylene terephthalate, polycarbonates, polyolefins like polyethylene or polypropylene, and polymethyl methacrylate (*acrylic film*);

wherein triactyl cellulose, polycarbonate and polyethylene terephthalate are preferred (Abstract; Col. 12, lines 27-58; Col. 13, lines 38-55; Figure 1.) Nakamura et al teach that the microparticles have a mean particle size of 5 to 200nm, preferably 5 to 50nm, and can be made of fluororesin or an inorganic substance such as metal fluorides or metal oxides wherein the metal atom may be tin, indium, zinc, cadmium, antimony, aluminum, and other metals as listed at Col. 8, lines 40-46, as well as inorganic particles containing two or more metal atoms (*reads upon claimed metal oxides as well as "conductive" fine particles*; Col. 5, lines 43-44; Col. 8, lines 39-47.) Nakamura et al also teach that the fine particles are used in the form of a dispersion which is applied to the substrate and then dried and that the layer further comprises from 5 to 25wt% of a transparent binder to fill a portion of the micro voids between the particles (*reads upon "impregnated with a transparent substance" as in Claims 21 and 33*; Col. 12, lines 27-Col. 13, line 4.) Nakamura et al teach that the particle dispersion liquid can include the fine particles and polymerizable monomers that may be reacted after coating the solution to produce the binder resin (*hence reads upon "no binder resin" as recited in Claim 24 given that the "resin" itself is not present in the coating liquid and the claimed invention does not exclude subsequent formation or impregnation of a binder resin*; Col. 13, lines 13-31.) With respect to the claimed "compression force" and "temperature below a glass transition temperature", though Nakamura et al do not specifically teach these process limitations, the Examiner takes the position that these limitations are product-by-process limitations wherein the invention taught by Nakamura et al appears to provide the same structure as the claimed invention. Given that product-by-process claims are not limited to the manipulations of the recited steps, only the structure implied by the steps and given that the steps do not clearly imply any difference in structure based on the

discussion in paragraph 3 above, the Examiner takes the position that invention taught by Nakamura et al anticipates the claimed functional film.

Response to Arguments

6. Applicant's arguments with respect to claims 1-3, 17-18, 21-22, 24-26, 28-30 and 33-34 have been considered but are moot in view of the new ground(s) of rejection.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Monique R. Jackson whose telephone number is 571-272-1508. The examiner can normally be reached on Mondays-Thursdays, 8:00AM-4:30PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Carol Chaney can be reached on 571-272-1284. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Monique R. Jackson
Primary Examiner
Technology Center 1700
April 30, 2007